Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of	)	
	)	WC Docket No. 05-196
E911 Requirements for IP-Enabled	)	
Service Providers	)	

REPLY COMMENTS OF VONAGE AMERICA INC.

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SUMMARY

Vonage America Inc. ("Vonage") submits these reply comments in response to the Further Notice of Proposed Rulemaking ("FNPRM") released by the Commission on June 3, 2005 in connection with its *VoIP E911 Order* and the initial comments submitted in response to the FNRPM. Vonage shares the Commission's vision and is working with third parties towards the deployment of ALI capability for VoIP E911 service as soon as possible. To date, however, viable ALI technology for VoIP E911 has not been developed, let alone deployed. Until such technology is available, the Commission should avoid mandating adoption of an ineffective ALI solution or impinging on the ability of the market to develop viable technologies. Instead the Commission should adopt specific performance and tracking criteria so that ALI technology can be developed, evaluated and deployed as soon as possible. As part of this evaluation, the Commission should consider whether any forthcoming obligation to provide ALI should fall on other entities such as the underlying network provider or a wireless carrier, who may be in the best position to determine ALI information.

Commenters have suggested that the Commission should not broaden the scope of E911 requirements or impose additional E911 obligations on VoIP providers. Vonage agrees that the obligation to deploy an E911 network is difficult, expensive and time consuming, and therefore agrees that such obligations should be imposed only where there is a reasonable expectation by end users that E911 service will be available. The Commission should therefore not impose such obligations on new technologies or applications such as softphones where no such consumer expectation exists. Vonage further agrees with commenters who suggest that the Commission should not adopt required timeframes for the processing of changes in registered location and

that the Commission should permit the expanded use of call centers to assist in the provision of E911 service.

State and local participation is critical to the proper functioning of the E911 system. Vonage is working closely with those entities and has been meeting with major market PSAPs to discuss and coordinate E911 implementation. Despite the critical importance of those entities, however, portions of the patchwork of state protocols threatens to slow VoIP deployment. Accordingly, the Commission should play an active role to ensure appropriate dissemination of information and prevent local deviations from serving as barriers to entry.

Finally, Vonage agrees with commenters who note that issues of access by the disabled and privacy are broad policy questions that are more appropriately addressed in an overarching fashion to ensure uniformity of the rules across different services. Vonage therefore concurs with other providers in urging the Commission to address such issues through a broader process such as the IP-Enabled Services docket or through a separate task force.

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I. Introduction

Vonage America Inc. ("Vonage") submits these reply comments in response to the Further Notice of Proposed Rulemaking ("FNPRM") released by the Commission on June 3, 2005 in connection with its *VoIP E911 Order*[1] and the initial comments submitted in response to the FNRPM. Through its *VoIP E911 Order*, the Commission sought to enhance public safety by ensuring that E911 services are available to users of VoIP services throughout the country. Vonage continues to work closely with competitive carriers, incumbent local exchange carriers, database operators and members of the public safety community to implement an E911 solution as rapidly as possible.

Based on its experience in working to deploy an effective E911 solution and as set forth more fully below, Vonage respectfully submits that the record suggests that the Commission should not impose ALI requirements at this time due to the nascent state of the technology as applied to VoIP users. Further, the record in this proceeding clearly shows that the Commission should not impose additional E911 obligations on VoIP providers at least until those providers

[1] *IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, FCC 05-116 (rel. June 3, 2005) (the "Order").

have completed their initial E911 systems and gained at least some experience operating them. Vonage applauds the work done by state and local public safety entities, without whom VoIP E911 cannot be deployed. At the same time, Vonage supports additional Commission involvement in areas such as, PSAP and E911 coordination, cost recovery, uniformity and making universally available on a non-discriminatory basis information critical to successful VoIP E911 deployment. Furthermore, the Commission should refine its rules to ensure that third party call center capabilities can be deployed, in certain limited circumstances. Finally, Vonage submits that access for the disabled and privacy obligations raise diverse issues of over-arching importance which would be better addressed in broader proceedings rather than this proceeding which is limited to VoIP E911 issues.

II. Vonage agrees with parties that suggest that Automatic Location Identification requirements are premature because Automatic Location Identification technologies have not yet been sufficiently developed, tested or deployed.

Vonage recognizes that the deployment of automatic location identification ("ALI") technology for VoIP services remains a central consideration in the Commission's E911 VoIP proceeding. Vonage agrees with the Commission's ultimate goal of encouraging ALI for VoIP services and reiterates its support for those efforts. However, as demonstrated by numerous commenters, significant technological roadblocks remain which must be overcome before an ALI system can be implemented in the VoIP context.[2] Vonage therefore suggests that the Commission not to impose an ALI obligation until the necessary technology has been developed and is available for broad scale deployment in a commercial setting. At the same time, as set

[2] *See, e.g., IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers, Comments of CTIA-The Wireless Association*, WC Docket Nos. 04-36 & 05-196, at 7 (filed Aug. 15, 2005). Throughout the remainder of these reply comments, citations to the initial comments filed in this proceeding will, by this reference, refer to the above-referenced dockets. *See also Comments of Earthlink, Inc.*, at 4; *Comments of United Online, Inc.*, at 9-11; *Comments of the United States Telecom Association*, at 5.

forth more fully in Vonage's initial comments and as discussed below, the Commission could significantly expedite the development of an effective E911 ALI solution by setting forth performance and tracking metrics which would guide and direct industry participants as they work to identify and create an ALI solution for VoIP.

Substantial agreement exists among the majority of commenters that ALI technologies are not sufficiently well developed for VoIP deployment, and that further study and innovation is needed.[3] Indeed, even comments from several E911 ALI system developers indicate that while current technology is promising, their systems are still under development and have not been extensively deployed.[4] Indeed, the difficulty of implementing a complete ALI system is illustrated by the wireless industry where, although service providers have been working to implement automatic location identification processes for years, complete (Phase II) ALI technology is available in less than fifty percent of the PSAPs nationwide.[5] Despite those efforts, the wireless experience is of only very limited use in developing VoIP location solutions. Although VoIP products are nomadic in nature, they differ significantly from wireless services both in terms of the manner in which they are delivered and the ways in which they are used. Given the current state of the technology, Vonage believes that it is much too early to conclude that any particular potential solution is superior to others or therefore to set parameters or a timeframe for required ALI implementation.

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3 *See Comments of Qwest Communications Corporation,* at 5-8; *Comments of SBC Communications Inc.,* at 6-9; *Comments of United Online, Inc*., at 9-11; *Comments of the United States Telecom Association, at* 5.

4 *See, e.g., Comments of RNK, Inc., D/B/A RNK Telecom,* at 2-5.

5 *See* http://www.nena.org/911_facts/911fastfacts.htm and http://nena.ddti.net/Reports/.

To that end, Vonage reiterates that the Commission should define the operating parameters under which a VoIP ALI solution should operate. Creation of such standards will allow industry participants to work closely together to create working solutions and deploy resources more efficiently and effectively. Vonage submits that at a minimum, an effective automatic location identification solution should meet at least the following criteria:

1) Address Verification: Recognizing that the automatic location identification is inherently most efficiently solved at the local level, the location provided by any potential solution should provide a Master Street Address Guide ("MSAG") validated street address by incorporating an X, Y coordinates-to-MSAG conversion feature.
2) Accuracy: The solution should be highly accurate and should be effective in providing an accurate location even in a high-density/multi-tenant environment.
3) Functionality: VoIP services are most frequently used indoors. Therefore, the automatic location solution must be designed to work effectively indoors.
4) Robustness: The solution should be highly dependable and handle significant variations in volume.
5) Cost: Any solution should not require equipment, particularly subscriber equipment, that unreasonably increases the cost or limits the mobility of the VoIP service, posing a hardship to the user.

In addition to these performance criteria, Vonage recommends that the Commission also develop appropriate tracking criteria that will ensure that potential solutions can be evaluated on an on-going basis for technical feasibility, accuracy, and cost. Tracking criteria are necessary for the Commission to obtain complete information about what products are available and how

effective those products are in terms of meeting the performance criteria from three separate perspectives:

1) Systems Perspective: The Commission should consider the effectiveness of available product offerings on the basis of the technical attributes of the proposed solution they offer and how effectively the solution can meet the performance characteristics identified above.

2) E911 Network Perspective: The Commission should consider whether and how the proposed solution will work in conjunction with the current E911 network, considering its adaptability to new network constructions and technologies through the open architecture system described above.

3) Market Perspective: The Commission should consider the availability of any potential solution with the goal of promoting a fully competitive industry.

VoIP providers can provide valuable insight into each of these perspectives and therefore can provide important information concerning the availability of E911 automatic location identification systems.

Finally, the Commission should evaluate which entity is in the best position to deploy ALI solutions and provide automatic location information. For example, in the event that a wireless GPS solution ultimately proves most effective, VoIP providers will need to rely on providers of GPS services to implement the solution. If a network based solution is ultimately perfected, the underlying network provider may well be best positioned to obtain and provide network based location information. Vonage therefore joins other commenters[6] in suggesting that the Commission should continue to closely monitor the development of ALI solutions and

[6] *See Comments of the Texas 9-1-1 Alliance,* at 19 ; *Joint Comments of Center for Democracy & Technology, et al.,* at 6-7.

encourage the entities which are developing ALI solutions and technologies to allow VoIP providers sufficient access on reasonable terms to rapidly deploy the ALI solution once it is developed.

III. Commenters suggest that the Commission should not broaden the scope of E911 requirements to other services or impose additional E911 obligation on VoIP providers; Vonage suggests that the Commission should refine its rules to allow broader use of call centers.

The Commission's current rules provide a solid foundation for the deployment of VoIP E911 services. Vonage and other VoIP providers are working closely with ILECs, CLECs, database providers, and the public safety community to deploy an E911 system and comply with the Commission's rules. However, deployment of a "nationwide" E911 system is a highly complex and difficult task, which no VoIP, wireless or wireline provider has fully completed. As a result, the effectiveness of those systems and the impact they will have on public safety cannot yet be assessed. Vonage therefore agrees with other commenters that the imposition of additional significant E911 obligations at this time either on VoIP services or other new technologies and services would be premature and counter-productive.[7] Instead, as set forth below, the Commission should refine the existing E911 rules to ensure that VoIP providers have sufficient latitude to employ PSAP support solutions such as call center, where by enabling such support complete deployment of an E911 system can be achieved before requiring or setting a time table for deployment of additional E911 capabilities.

A. New Technologies

A consistent theme running through many of the initial comments is that the Commission should limit the scope of E911 obligations to those services where the user would have "a

[7] *See, e.g., Comments of SBC Communications Inc*, at 3-4; *Comments of Time Warner, Inc.*, at 7.

reasonable expectation" that E911 service would be available.[8] That position is consistent with the Commission's Order where the Commission specifically required VoIP providers to send notices and labels to their subscribers on the grounds that some users "may not know their host's phone service is provided via interconnected VoIP."[9] That statement implies that users of VoIP services expect to be able to reach E911 because the VoIP CPE typically includes a phone which is indistinguishable from a traditional telephone. E911 regulation is therefore necessary to ensure that when the public reaches for the "phone," they receive E911 service – regardless of whether that phone is attached to service provided by traditional regulated telephony or unregulated VoIP services.

Indeed, for many new communications technologies, the public has no expectation of being able to access emergency services. For example, while many people now communicate by E-Mail or Instant Messaging ("IM"), few people have the expectation that E911 service will be available over such mediums. Constructing an E-Mail or IM based E911 system, for example, would therefore not likely yield substantial safety benefits. At the same time, the imposition of an E911 obligation on new innovative services could well retard or even prevent the development and deployment of new technologies within the United States. Vonage urges the Commission to consider technologies and service arrangements on a case–by-case basis instead of imposing a blanket obligation to provide E911 service on all new technologies. Deployment of additional E911 systems requires significant time and effort to construct, particularly given the resources of the PSAPs, the present native 911 network and other emergency responders.

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8 *See Comments of AT&T Corp*., at 8-10; *BellSouth Comments*, at 7; *Comments of GlowPoint, Inc*., at 1; *Comments of Qwest Communications Corporation*, at 3-4; *Comments of Skype Communications, SA*, at 5.

9 Order, ¶ 48, n.156.

Imposing additional obligations while VoIP E911 service is still being implemented could significantly complicate and delay the VoIP E911 efforts now underway. The Commission should therefore impose E911 obligations – and require the construction of the extensive architecture needed to meet those obligations – only where a new system is likely to yield significant public safety benefits.

Softphones – software that allows a computer owner to use their computer for voice communications using VoIP technology – are an important example. Softphone use varies from other VoIP services in several ways. Softphones are often installed in laptop computers – as a result, softphones have a higher rate of mobility and therefore present an increased risk of inaccurate location information and misdirected calls. Because softphones involve a computer, not a phone, casual end users are far less likely to expect E911 service to be available. Further, while it is possible that softphone use will increase in the future, to date, adoption of softphone technology remains in its infancy. Therefore, as described more fully below, Vonage recommends that the FCC consider revising its E911 requirements for interconnected VoIP services that utilize softphones.

B. Interconnected VoIP Services

With respect to VoIP services, the imposition of additional requirements on VoIP providers at this time will be counter-productive, nearly impossible to manage given the thousands of 911 PSAPs and myriad of jurisdictional roles and responsibilities of the 911 community, and therefore difficult for the industry to achieve. Although Vonage is working hard to meet the Commission's deadline, there is no off–the-shelf solution available, and Vonage must therefore rely on many third parties and new innovation to create a nationwide E911 solution for its nomadic customers. While Vonage remains committed to the goal of timely

deployment of a nationwide E911 system, Vonage is still working to construct a complete E911 solution and is continuing to identify issues and work through the technical, operational and policy aspects of creating a nationwide E911 system from scratch. Given the breadth of Vonage's customer base and the nomadic nature of its service, Vonage must establish connectivity to hundreds of selective routers across the country and engage in testing and turn-up activities with thousands of PSAPs. The 911 community is still very new to VoIP and has yet to implement the necessary standards, operational procedures and state and local policy framework to complete a truly nationwide 911 system. The addition of new E911 obligations prior to the completion and testing of a functional VoIP E911 system, or shortly thereafter, would complicate and delay those efforts. It would also jeopardize the ability of Vonage and other VoIP providers to meet the Commission's deadlines and maintain and improve the service after initial deployment is completed. The Commission therefore should not impose additional requirements at least until Vonage and other VoIP providers have completed their E911 deployments and the industry and public safety alike has gained the necessary experience operating and implementing these new systems.

Based on Vonage's experience in working to deploy an E911 solution and the views of other VoIP providers expressed in the initial comments, Vonage agrees that adoption of specific timeframes for the processing of changes in registered location should not be adopted at this time. The initial comments demonstrate no concurrence among VoIP providers as to appropriate timeframes for registered location processing. Vonage believes that the variations between VoIP providers on this point may exist due to differences in customer bases and systems. As a result, Vonage agrees with the comments of the United States Telecom Association ("USTA") that

variations exist because not all VoIP providers will or should serve the market in the same way and that specified timeframes are not appropriate at this time.[10]

The Commission should also clarify its existing rules to ensure that VoIP providers may meet the November 29, 2005 E911 deployment deadline for all their customers, rather than being forced to disconnect some customers, particularly in rural areas, for whom the deadline cannot be met. Under the Canadian model, call centers are an integral part of the interim VoIP E911 solution for nomadic VoIP services.[11] The Canadian Radio-television and Telecommunications Commission ("CRTC") adopted the view that it was more important for a caller in distress to reach a person capable of providing assistance rather than the alternative of having no access to emergency services. The CRTC charged the CRTC Interconnection Steering Committee with the task of working with the industry to develop a permanent VoIP E911 solution for nomadic VoIP services.[12] The same call center benefits available to Canadian consumers of nomadic VoIP services, as well as PSAPs should be available in the United States. Commission rules currently contain no clear statement on the permissibility of call center assisted calls. Yet, good reasons exist for permitting this solution to be deployed, within limited circumstances and to additionally enhance the capabilities of the current E911 system.

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[10] *See Comments of the United States Telecom Association*, at 7. *See also BellSouth Comments*, at 7-8; *Comments of RNK, Inc., D/B/A RNK Telecom*, at 11; *Verizon Comments*, at 4-5.

[11] *See generally* Telecom Decision CRTC 2005 21, *Emergency Service Obligations for Local VoIP Service Providers* (rel. Apr. 4, 2005).

[12] The CRTC Interconnection Steering Committee ("CISC") is an organization established by the CRTC to assist in developing information, procedures and guidelines as may be required in various aspects of the CRTC's regulatory activities. The CISC is analogous to the North American Numbering Council and the Alliance for Telecommunications Industry Standards in the United States.

The use of call centers to assist in completion of E911 calls can also play a limited but critical role in the proper handling and routing of E911 calls. As part of its existing 911 Dialing solution, Vonage has deployed a safety net call center that is manned by APCO-33 trained call takers 24x7x365. When a customer's 911 call defaults to the safety net call center, the call taker receives the caller's call-back number, address, and other relevant emergency information, verifies the information, and then stays on the line while connecting the caller to the nearest PSAP or first responder available. As Vonage completes its database of registered location information, this information will be automatically available to the call taker.

While Vonage initially deployed the call center as part of its interim 911 dialing solution, call centers could be important complements to the full E911 solution mandated by the FCC and indeed are part of the Draft NENA i2 Standard. For example, call center operations are critically important in instances where the PSAP has not yet been able to deploy more sophisticated capabilities, including, for example, where the PSAP does not yet have ALI capabilities and cannot receive registered location information automatically. In addition, where PSAPs have no ability to re-route misdirected calls, call center involvement may be important to ensure that misdirected calls to that PSAP can be re-routed. The use of call center assistance will be vitally important for the handling of VoIP E911 calls placed by subscribers who are in the process of changing their registered location and for those that change location weekly, daily, or even hourly, such as softphone subscribers. For such callers, Vonage expects that the registered location information may often be out of date or otherwise inaccurate. Use of a call center for those customers will provide a substantially higher likelihood that the call can be routed to the correct PSAP, thereby allowing for an expedited and effective response. Moreover, in the event of a system or database failure, traditional E911 call handling may fail. In such an event,

NENA's Draft i2 Standard specifically provides for call center deployment as a fail-safe measure.[13] While the purpose and use of call centers for 911 calling and transfers has had varied use, successful models are presently being offered by satellite operators and telematics providers. In these instances the privately operated call centers are able to provide rich data and content to distress calls that might otherwise have limited information, routing capabilities and non-traditional methods to reach a proper responder. Where technical challenges exist, the call center is able to circumvent bottlenecks through strong operational procedures and standards. To support call center functionalities and capabilities for the aforementioned industries, the public safety community has developed, and where applicable, implemented operational standards, procedures and protocols to ensure more thorough calling and response. Vonage believes that such an effort needs to be undertaken for VoIP purposes and is presently reaching out to public safety leaders to achieve additional operational functionalities for the safety net call center. As the deployment of VoIP E911 is truly the first technical "nationwide" deployment of E911, it is necessary that we also develop achievable operational capabilities. Call centers are able to support operational functionality of PSAPs and ensure that timely information can be moved throughout North America in a seamless fashion. The Commission should therefore expressly permit providers to use a call center solution as a back-up measure to ensure the seamless provision of E911 service and as a primary means of completing E911 calls for customers that use softphones. By doing such, the Commission should also support the collaboration of public safety and the VoIP industry to implement operational capabilities designed to continue to improve the E911 process.

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[13] *See* NENA's Draft i2 Standard, at 31-37, *available at*: http://www.nena.org/i2_Solution_VTC_08-001_final_08_05_05_rev03.pdf.

In summary, Vonage respectfully submits that the imposition of additional E911 obligations would be detrimental at this time. In many instances such requirements would not provide significant public safety benefits, but rather would harm the public interest by impairing the development and introduction of new technologies into the marketplace or the timely roll-out of VoIP provider's existing E911 obligations.

IV. State and local participation is critical to the proper functioning of the E911 system. However the Commission should adopt rules in certain areas to promote uniformity and dissemination of critical deployment information.

In the FNPRM, the Commission requested comment on the role states should play to help implement the E911 rules adopted by the Commission.[14] The FNPRM also asked what action, if any, the Commission should take to facilitate the states' ability to collect 911 fees from interconnected VoIP providers. Several parties commented that the Commission should significantly limit state involvement in this area.[15] Others noted that state and local authorities, as well as PSAPs, should play a considerable role.[16] Vonage believes the correct level of state involvement falls somewhere in between these two positions. Vonage further recognizes and supports States in the coordination and deployment of E911 and the leadership provided under the Wireless Public Safety Act of 1999 and the Enhanced 911 Act of 2004.

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[14] *See* FNPRM, ¶ 61.

[15] *See, e.g., Comments of the United States Telecom Association*, at 9 (stating that applying different solutions in different states is burdensome and expensive for communications providers); *Comments of SBC Communications Inc.*, at 15 (declaring that allowing a patchwork of inconsistent state VoIP 911 requirements would impose unnecessary compliance burdens and costs on VoIP providers and slow the deployment of VoIP services to consumers across the nation); *BellSouth Comments*, at 9 (noting that the Commission should assume primary responsibility to set and enforce requirements; states should focus on funding).

[16] *See e.g., Comments of the Texas Commission on State Emergency Communications*, at 4; *Comments of The Texas 911 Alliance*, at 14-16; *Initial Comments and Waiver Request of the Public Service Commission of the State of Nebraska*, at 3.

The close involvement of the existing E911 community in the creation of the new VoIP E911 system is a critical component for success. As with any other 911 program that utilizes local emergency service personnel, states, localities, and PSAPs must remain closely involved if the VoIP E911 system is to operate effectively. PSAPs and other local and state emergency communications agencies are well positioned to identify and address locality-specific issues with VoIP E911 solutions. Recognizing that locality-specific issues may arise with the Company's E911 deployment, Vonage has implemented an extensive outreach program aimed at coordinating E911 implementation efforts with of PSAPs nationwide. To this end, Vonage has embarked on an extensive effort to visit thousands of PSAPs and 911 administrative agencies across the country in order to begin trading ideas, forming relationships, and fostering cooperation in order to meet the challenges associated with establishing a VoIP E911 solution.

As noted in Vonage's August 26, 2005 *ex parte* filing, the Company has been meeting with major market PSAPs to discuss its E911 implementation plan and respond to questions. Vonage will continue to meet with as many PSAPs as possible throughout the VoIP E911 implementation timeline. Additionally, Vonage is providing thousands of PSAPs with an information kit and direct contact to the Vonage implementation team. This correspondence not only provides PSAPs with Vonage-specific E911 implementation information, but also requests information from PSAPs necessary to complete Vonage's E911 rollout. In addition to technical details on Vonage's E911 solution, the correspondence contains answers to frequently asked questions, general information on Vonage's VoIP services, and contact information for Vonage employees working on the Company's E911 solution rollout. Additionally, Vonage has uploaded a website for E911 deployment, www.vonage.com/psapcom, to further support the public safety community in implementation of VoIP services.

Although the continued involvement of local authorities is important to a swift and effective deployment of VoIP E911, significant variation exists between the processes, procedures and systems now in place in the localities across the country. The organization and capabilities of public safety organizations is similarly diverse.

Vonage understands that local conditions vary widely between different areas of the country and that public safety organization and capabilities have been customized to meet local needs. However, in some instances, this existing patchwork of state requirements and protocols threatens to slow implementation and prevent VoIP providers from quickly rolling out a uniform, nationwide E911 solution. Where it will not interfere with necessary customization, the Commission should provide guidance to enhance uniformity and allow more efficient E911 deployment. For example, Vonage's gateway-based E911 solution, which relies on partners and aggregates all 911 calls of multiple VoIP providers over a single trunk group to the selective router, not only conserves valuable trunking resources but also costs Vonage's customers five times less than if Vonage were to direct trunk to each selective router on its own. Yet the efficiency of Vonage's E911 solution is being threatened because some PSAPs are attempting to require VoIP-specific and/or provider-specific trunks between the selective router and the PSAP. On average, Vonage completes approximately one hundred 911 calls per day. It would therefore be wasteful of both public and private resources to require Vonage-specific trunks into every PSAP across the country. The Commission should therefore provide guidance as to the trunking architecture behind selective routers. Vonage recommends that the Commission specify that each provider should not be required to have its own specific trunks between the selective router and the PSAP. This simple step will save a significant amount of time in the implementation of E911 services and allow the efficient use of existing selective router ports and trunk groups.

Furthermore, Vonage suggests that the Commission should take an active role in ensuring that critical E911 information is universally available on a non-discriminatory basis. VoIP providers, indeed any providers attempting to deploy nationwide E911 systems, need access to significant local information which is not generally publicly available in order to provide E911 services. For instance, Master Street Address Guides ("MSAGs"), which are necessary to provide MSAG-verified location information, need to be universally available on non-discriminatory terms to any provider, ILEC, CLEC, VoIP, or other new technology, that is deploying an E911 system. Yet no centralized or uniform system exists today for providers to obtain MSAGs. No publicly available list of selective routers or PSAPs exist. Processes for assignment of numbering (pANI) resources remain for some locations undefined.[17] Vonage respectfully submits that collection of such information in a clearinghouse format would allow VoIP providers and, indeed other providers, one stop rapid access to the information they require to expeditiously design and deploy their E911 systems. Such information would also serve as a valuable resource for PSAPs who can quickly and easily find information about the operations of other public safety organizations.

In summary, while some state and local customization is necessary, any such local deviations should not act as a barrier to entry for VoIP or other providers who are working to deploy a nationwide E911 network. In order to meet our shared goal of nationwide E911 deployment, the Commission must ensure that the E911 architecture is open and transparent and

[17] Vonage recognizes that the process for creating an Interim 9-1-1 Routing Number Authority ("Interim RNA") is underway and Vonage has been closely involved in those efforts. While Vonage believes that the creation of an Interim RNA is an important first step, the Interim RNA as currently proposed will operate only where no other entity is assigning pANI codes. As a result, the creation of the Interim RNA by itself will not provide complete transparency to the pANI assignment process, nor will it establish consistency in pANI assignment practices.

that all inputs necessary for deployment are universally available on a non-discriminatory basis.[18]

V. The Commission should consider access for the disabled and privacy within a broader proceeding rather than in this narrowly tailored docket.

In the FNPRM, the Commission requested comment on access for the disabled and the scope of privacy obligations that should be imposed on VoIP providers.[19] Vonage agrees with other commenters that noted that these issues can be more effectively addressed in a proceeding with a broader scope, such as the IP-Enabled Services proceeding, rather than the narrow VoIP E911-specific docket.[20] The record developed in this proceeding is narrowly limited to E911 concerns. Rules pertaining to access for the disabled and privacy present broad policy questions which span across all types of new services, and non-911 aspects of VoIP services. Accordingly, Vonage submits that access for the disabled and privacy topics are more appropriate addressed in overarching fashion both to ensure uniformity of the rules across different services as well as to provide the encompassing focus that these issues deserve.

IP technology has the capability to significantly improve access to emergency services for persons with disabilities. For example, VoIP may be a better platform to transmit and receive pictures, medical telemetry, system status reports, and other data that would aid emergency responders and 911 operators. Commenters in this proceeding have duly noted that the promise of IP technology goes far beyond 911 issues. With the growth in IP-based text and video calls,

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[18] Indeed, the lack of an entity changes with responsibility of the overall E911 system engineering function was specifically identified as an obstacle to the efficient, timely and cost effective deployment of the wireless E911 system. *A Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services,* Dale H. Hatfield, at 23.

[19] *See FNPRM*, ¶¶ 62-63.

[20] *See Comments of SBC Communications Inc.*, at 13-14; *Comments of the United States Telecom Association*, at 9.

VoIP service may soon replace traditional TTY relay calls, enabling portability and American Sign Language communication not possible with traditional TTY.[21] These broad issues cannot adequately be addressed in the context of this narrow E911 rulemaking proceeding.

Similarly, consumer privacy concerns transcend E911 issues. Consumer privacy issues affect all aspects of the provision of VoIP and other IP-enabled services. While these issues may arise in the context of E911, VoIP and other service providers must consider privacy concerns in all aspects of their business operations. In many instances, VoIP providers have already developed or are working to deploy programs to address privacy concerns.[22]

Given the foregoing, Consumer privacy and access for the disabled are topics which transcend the E911 issues addressed by the Commission in this docket. These broad concerns generally affect the provision of VoIP and other IP-enabled services in general, and will extend to other technologies in the future. Although several commenters provided the Commission insights which demonstrate the importance of these issues, a more comprehensive record on these and other public policy concerns should be developed in other Commission dockets. To date, the record in this proceeding has largely considered these issues only in the relatively narrow context of E911. Yet, factors beyond E911, such as national security and considerations of VoIP operations outside of E911 deployment, may be significantly affected by Commission action. Much like the CALEA proceeding, broad topics, such as privacy and access for the disabled, deserve more detailed and encompassing treatment than can be provided in this

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21 *See Comments of the Rehabilitation Engineering Research Center on Telecommunications Access*, at 4.

22 For example, Vonage has already adopted a detailed privacy policy which is available, at http://www.vonage.com/help.php?article=399&lid=footer_privacy. These steps typically address issues far beyond E911. In light of these policies, additional regulation may not be necessary.

narrowly tailored proceeding. Vonage therefore concurs with other providers in urging the Commission to address such issues through a broader process such as the IP-Enabled Services docket[23] or through a separate task force.[24]

VI. Conclusion

In summary, Vonage agrees with other commenters and respectfully submits that the Commission should refrain from imposing any additional E911 obligations on VoIP providers at this time. While Vonage shares the Commission's ultimate goal of deployment of ALI capability, the technology necessary for the deployment of an effective ALI solution for VoIP is still under development. Moreover, given the scarce resources necessary to design and provision an E911 system, Vonage submits that additional regulation at this time would be counter-productive and could chill development of new technologies and threaten deployment of E911 for VoIP services.

Vonage has been working closely with state and local public safety entities. Vonage applauds the efforts of those entities and agrees that their continuing involvement is critical to the success of VoIP E911 deployment. Nevertheless, in certain discrete areas, Vonage believes that the Commission should take an active role to ensure that VoIP E911 services can be deployed as quickly as possible. Specifically, Vonage recommends that :

1) Without interfering with necessary customization between local entities, the Commission should enhance uniformity and promote more efficient E911 deployment by requiring that the elements necessary for the provision of E911 be uniformly accessible to all providers on a non-discriminatory basis. For example, the Commission should provide

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23 *See Comments of SBC Communications Inc.*, at 13-14; *Comments of the United States Telecom Association*, at 9.

24 *See Comments of AT&T Corp*., at 13-14.

guidance that the calls of multiple providers may be carried on a single trunk group between a selective router and a PSAP.

2) The Commission should create an information resource which will allow VoIP providers one stop, non-discriminatory access to a variety of information (MSAG ownership, selective router information, PSAP location information, etc.) which will allow expedited deployment of E911 systems.

3) The Commission should refine its rules to confirm that the use of call center assisted calls are permissible, if not generally then at least in limited circumstances as outlined above.

Finally, with respect to access for the disabled and privacy issues, Vonage agrees with commenters who identify these issues as matters of significant concern. However, Vonage respectfully submits that those issues have broad, overarching implications which are better addressed in the context of either a broader proceeding or through a task force.

Respectfully submitted,

_____/s/_____

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